

## **SLENDER WHEATGRASS**

***Elymus trachycaulus* (Link)  
Gould ex Shinnery ssp.  
*trachycaulus***  
plant symbol = ELTR7

Contributed by: USDA NRCS Plant Materials  
Program



USDA NRCS  
Upper Colorado Environmental Plant Center  
Meeker, Colorado

### **Uses**

**Grazing/rangeland/pasture:** Slender wheatgrass is palatable and nutritious for livestock. It also makes good quality hay.

**Wildlife:** It is among the preferred wheatgrasses for elk and bighorn sheep at higher elevations.

**Erosion control:** Slender wheatgrass is recommended for inclusion in reclamation mixes because of its good seedling vigor and establishment qualities. It is also somewhat tolerant of saline soils.

**Reclamation:** Slender wheatgrass seedlings are vigorous and provide good initial plant cover in seed mixtures. Plants tend to be short-lived, thus giving other plants a chance to become established.

### **Status**

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's

current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

### **Description**

*Elymus trachycaulus* (Link) Gould ex Shinnery, slender wheatgrass, is an erect, tufted bunchgrass ranging in height from 2 to 2-1/2 feet. It is a relatively short-lived (3 to 4 years) cool season perennial species native to the mountain and intermountain areas of the western United States and the northern Great Plains. It has very short rhizomes and the seedstalks and stems have a characteristic reddish to purplish tinge at the base.

### **Adaptation and Distribution**

Slender wheatgrass is a widely distributed species and can be found growing at elevations from 4,500 to 12,000 feet. It prefers loams and sandy loams in areas receiving at least 14 inches of annual precipitation. Slender wheatgrass grows on moist to dry sites and has moderate to good tolerance of alkaline conditions (pH = 8.8). Salinity tolerance ranges from 1 to 16 mmhos/cm depending on environmental conditions and ecotype. It is surpassed in this trait only by tall wheatgrass.

It is less drought tolerant than either crested or western wheatgrass and may succumb to drought since it sometimes matures late in the season. It does not tolerate excessive soil moisture. It is shade tolerant.

Considerable genetic variability is present in slender wheatgrass populations and some ecotypes may be rather specific to their original sites due to self-pollination.

Slender wheatgrass is distributed throughout the northeast, north, and west portions of the United States. For a current distribution map, please consult the Plant Profile page for this species on the PLANTS Website.

### **Establishment**

Seeding with a conventional drill is not difficult. Drilling depths should be 1/4 to 3/4 inches. Medium textured, well drained soils are preferred. The recommended drill seeding rate of 6 pounds PLS per acre will apply approximately 20 seeds per square foot. Seeding rates should be doubled for critical areas and broadcast seedings.

Seedling vigor is excellent during the first year of growth. New stands increase in size by vigorous

tillering. This is a fast growing grass which can establish quickly on critical sites.

### **Management**

Slender wheatgrass is best suited as a filler in seed mixtures containing slower establishing, longer-lived species for use on mountain and foothill sites. It is only moderately tolerant of grazing and requires good management to maintain stands. It performs best for hay and pasture when grown in combination with legumes.

### **Cultivars, Improved, and Selected Materials (and area of origin)**

'Pryor' is a release from the Bridger, Montana Plant Materials Center and is useful for conservation and reclamation planting mixtures.

'Revenue' is a 1970 release from Canada.

'San Luis' slender wheatgrass has good adaptation and is long-lived at elevations of 4,500 to 12,000 feet.

### **Prepared By & Species Coordinator:**

*Dan Ogle*, Plant Materials Specialist  
USDA NRCS  
Boise, Idaho

06Feb2002 JLK

---

For more information about this and other plants, please contact your local NRCS field office or Conservation District, and visit the PLANTS Web site <<http://plants.usda.gov>> or the Plant Materials Program Web site <<http://Plant-Materials.nrcs.usda.gov>>

*The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).*

*To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.*